

EDITORIAL ARTICLES.

THE SURGICAL TREATMENT OF ACUTE INTESTINAL OBSTRUCTION.

An interesting discussion upon acute intestinal obstruction, with especial reference to its surgical treatment, took place at the annual meeting of the New York State Medical Society, held at Albany, on February 8, and it will not be unprofitable to review some of the opinions expressed.

The causes and symptoms of all the various forms were very carefully enumerated by Dr. Lewis A. Stimson, but the only diagnostic signs which could be pointed out were the history of previous peritonitis in obstruction by bands and adhesions; the history of previous attacks of biliary colic in obstruction by gall-stones; the slow development of stricture and neoplasms of the bowel and the occasional presence of a tumor in the abdomen in the latter cases; and the subacute course, the passage of blood and mucus from the anus, with tenesmus, and the tumor to be felt in the abdomen and rectum in cases of intussusception. To these diagnostic signs must be added the observation of Dr. A. Jacobi, that in fecal impaction the thermometer, placed in the rectum, would indicate a slight elevation of temperature, due to colitis, local peritonitis, and septic absorption—an elevation which was absent during the first two or three days of obstruction from other causes.

Dr. Stimson emphasized the fact that these distinctive symptoms were frequently absent, and that even when present they were not altogether reliable. For instance, acute obstruction is quite often the first marked sign of cancer or stricture, as was shown in one of his cases, in which there had been no symptoms from a very tight stricture of the transverse colon, until it was blocked by an apple-seed.

Spontaneous recovery was possible only in intussusception, a stric-

ture blocked by some foreign body, and perhaps in cases of impacted gall stone. Even in these cases spontaneous recovery was so rare that if the surgeon could exclude paralysis of the intestine and impacted feces as the cause of the obstruction in any case, it was clearly his duty to attempt to relieve the patient by operative measures. But the difficulty lay precisely at this point, to exclude paralysis and impacted feces at a sufficiently early period in the case. This sentiment was echoed by all the speakers. And a very practical statement of the dilemma was made by a gentleman who styled himself a country doctor, who was anxious to learn how to *know* when the cause of obstruction was such as to require operation, for the doctor in the country might have to call a surgeon twenty or even one hundred miles to see the patient, and could not rest satisfied with mere guessing.

Dr. Arpad G. Gerster thought that the failure to make an early diagnosis was often due to the fact that it was too much the habit of the physician to consider these cases when first seen as examples of ordinary colic, and to omit a thorough physical examination of the abdomen at that time, thus losing the favorable moment before tympanites rendered such an examination impossible.

It must be confessed, however, that none of those who took part in the discussion added anything to our powers of diagnosis. In fact, if anything marked the numerous cases related by Dr. William C. Wey, Dr. Simmons, and others, to prove that apparently desperate cases, suffering from symptoms of collapse and fecal vomiting, may recover, it was the close resemblance between them and the fatal cases of intestinal obstruction. But the statement of Dr. Robert F. Weir is worthy of note. That valuable time was often lost in attempting to determine the exact cause and site of the obstruction, and that the point to be decided in these cases was not where and what the obstruction was, but whether there really was an acute obstruction of such a nature as to require relief by operation.

In regard to the recovery of desperate cases without operation, the same speaker made the pertinent remark that while such cases were known to all, what he desired to learn was the relative proportion

which they bore to the desperate cases which terminated fatally, for in these same desperate cases the surgeon could probably save nearly thirty per cent., and it was important to discover what proportion could recover without his assistance, in order to decide upon the relative worth of medical and surgical treatment. If the number of cases treated by early operation were increased, the percentage of mortality would be very much reduced. Therefore, even if some cases which might have recovered spontaneously were submitted to operation, probably a larger proportion of all the cases of intestinal obstruction would be saved than with the present custom of delaying operation until there is no hope of spontaneous recovery.

Dr. Weir also remarked that with every case in which the surgeon performed laparotomy, and found a volvulus, a band, or some other cause of obstruction which could not be relieved in any other way, he felt encouraged to operate upon his next case without waiting until the symptoms were so marked and the patient in such a miserable condition as to place the diagnosis beyond all shadow of doubt. He knew of no case in which laparotomy had been performed, and fecal impaction found as the sole cause of obstruction, and thought such an error unlikely to occur, in spite of the occasional cases in which laparotomy has been performed and no obstruction found. These two facts certainly warrant Dr. Weir's feeling that it was time for the physician to know of the growing confidence of the surgeon in the necessity for operative treatment in these cases, and to be led by the influence of that faith to bring the cases to the surgeon before every chance of success had been squandered by delay.

As Dr. A. Vander Veer remarked, the need of the hour is a series of cases of successful, early operations, in order that the physicians may be encouraged to refer their cases of acute intestinal obstruction to the surgeon before it is too late.

The statement made by Dr. Weir, that if severe pain, vomiting, and constipation had lasted for forty-eight hours, it is necessary to operate at once, was so qualified that it could not be taken literally, but was evidently intended to stimulate the discussion, and to urge the necessity for a very early operation. A similar statement was made with a like pur-

pose in view by Dr. William T. Bull, in reporting some cases of laparotomy at the February meeting of the Practitioners' Society of New York. It must also be remembered that Treves has already advised operation, in cases of intussusception, in the first forty eight, or if possible in the first twenty-four hours after the development of marked symptoms. The statistics presented in this discussion by the writers show the necessity for an early operation, but after the first three days, for which the mortality was respectively 62%, 70%, and 73%, there is no regular variation exhibited by the death-rate, probably because the symptoms in the cases which were postponed for a long time were not so severe as in the cases which were operated upon during the first two or three days. It is evidently impossible to place any exact time limit before which the operation must be performed in order to secure success, for the severity of the symptoms and the necessity for haste vary so much in different cases.

The indications laid down by Dr. Roswell Park as guides in the choice between laparotomy and enterostomy are not entirely free from objections, as was probably felt by Dr. Park himself, for he expressly stated that he thought the question was not yet ripe for decision. He favored laparotomy when the diagnosis of a cause which could be removed was certain, and when suppurative peritonitis was present, for the peritonitis could best be treated by laparotomy. But if the cause of obstruction was a malignant tumor of the intestine, if the tympanites was extreme, and if the cause of obstruction could not be determined, enterostomy was to be preferred. These are very nearly the rules propounded by Verneuil in the discussion upon intestinal obstruction in the Société de Chirurgie of Paris last Spring. Now, it is unanimously agreed that, with the exception of intussusception, stricture, and neoplasm of the intestine, the diagnosis of the cause of obstruction is impossible, consequently the adoption of such rules as those just quoted means a restriction of laparotomy to the exceptional cases.

These rules also leave out of consideration the chief factor to be regarded in making our decision—the condition of the patient at the time. In the introduction to his paper upon the technique of laparotomy for intestinal obstruction, Dr. Weir appears to me to have

indicated the correct answer to this question. He says that, although laparotomy be scientifically the only proper method of treatment for acute intestinal obstruction, it often promptly terminates the life of the patient, because of the profound shock which accompanies this condition; but that enterostomy, although in itself only palliative, sometimes yields brilliant results, and at least does not add to the shock which is already present.

It is the belief of the writer that when the patients are in the state of exhaustion in which most of them now are when placed in the hands of the surgeon, enterostomy, which may even be performed without a general anæsthetic, is the only justifiable operation. I am confident, also, that we have no idea at present as to what the recent results of enterostomy for acute intestinal obstruction really are, for the statistics of Treves probably do not fairly present them. In the future these cases will be brought to the surgeon at an earlier period, and the better condition of the patient will justify the performance of laparotomy as frequently then as now, while the results obtained will be far better than at present, although it is not probable that the sanguine views of Greig Smith will be realized with a reduction of the mortality to "about fifteen per cent."

In the opinion of Dr. Weir, a very long incision should be made in performing laparotomy for intestinal obstruction. Although he would not consider it wise to blindly follow in every case the proposal of Kümmel, to make an incision from the ensiform cartilage to the pubes, he looked upon it as a distinct advance, because it recognized the necessity for making the operation as brief as possible, while the large incision did not materially increase the dangers of the operation, and even facilitated the reduction of the distended intestine after the obstruction had been found and relieved. The reality of this gain of time is shown by Kümmel's statement that he had performed the operation in twenty minutes, whereas everyone knows that these operations generally require an hour, and not infrequently twice that time. The necessity for a short operation is well shown by the cases collected by the writer, which give a mortality of 55.7% in 190 cases in which the operative interference was limited to relieving the obstruction,

without wounding the bowel; while it rose to 73.3%, in 15 cases in which it was necessary to establish an artificial anus after the obstruction had been removed; and to 83.3%, in 48 cases in which the gut had to be sutured. In all these cases the true danger lay in the length of the operation, not in the yielding of the sutures, for death was caused by sepsis in only 10% of the fatal cases.

Chloroform was strongly recommended by Dr. Weir as the anæsthetic most suitable for these cases—a recommendation all the more valuable, as it came from one who employs ether for all his general surgical work. Ether seemed to him to cause more shock than chloroform, and the subsequent bronchial irritation was very injurious. Dr. Gerster and others agreed in this opinion.

As to other methods of treatment, all united in condemning puncture of the gut, because there was great danger that the openings would fail to close, owing to the paralyzed state of the wall of the bowel. Dr. Francis Bacon, of New Haven, related two cases of intussusception treated lately by him with success by inflation; but here again Dr. Park stated that in one case in which he had performed laparotomy he had found that previous attempts at reduction by inflation had caused a perforation of the gut, and this complication had resulted in the death of the patient.

Finally, the results of operative treatment were considered by the writer, who found a mortality of 68.4%, in a collection of 339 cases. In the 232 fatal cases, the cause of death was the poor condition of the patient in 103 cases, complications in 41, and failure to find or to relieve the obstruction in 30. The reports were incomplete in 13 cases. Of the remaining 45 cases, 13 died of shock, 3 from an unusually prolonged operation, 17 of sepsis which was probably due to the operation, and in 12 cases the cause of death could not be definitely ascertained. For further details the reader is referred to the paper itself, published in this number of the *ANNALS OF SURGERY*.

The opinion of Dr. Jacobi, that laparotomy for intestinal obstruction should be classified with tracheotomy and herniotomy, and looked upon as one of the operations which every practitioner should be prepared to perform upon an emergency, when the assistance of an ex-

pert could not be procured, is certainly not to be accepted without important reservations. As Dr. Bacon remarked, the elaborate technique described by Dr. Weir gave the uninitiated some idea of the great difficulties to be overcome in these operations, and the complicated manœuvres which must frequently be resorted to. This alone should serve as a warning to those without experience in abdominal surgery, and certainly to those without any surgical training, not to undertake these very difficult operations rashly. While it is true that not a few of the successful operations have been performed by country physicians, with insufficient help, scanty towels, doubtful water, and the most unpromising surroundings, no physician should neglect any precaution which tended to improve the chances of the patient, and he should at least allow him the advantage of the most skilful surgeon available. At the same time we may agree with Dr. Jacobi in so far that no physician should allow a patient to die, merely because he is lacking in courage to undertake an operation which he is really competent to perform.

As a substitute for the proposal so often made, that all cases threatened with acute intestinal obstruction should be handed over to the surgeon forthwith, a proposal which is probably too chimerical ever to be adopted, Dr. Weir made the very practical suggestion that in such cases a surgeon should be associated with the physician, a suggestion which deserves very serious consideration, for there is no malady where the double counsel is so necessary as in this perplexing and desperate condition.

On the whole, the discussion was very encouraging—not that it added much that was new to our store of facts, but because it showed the great interest felt in the subject, and with such eager observers some increase of knowledge may surely be expected before long. Certainly, the errors due to negligence and hesitation, altogether too frequent hitherto, even in cases in which there was no excuse for hesitation, will not occur in the future—at least in the state of New York.

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